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Date:

ST. JOSEPH’S COLLEGE (AUTONOMOUS), BENGALURU-27

B.Sc. ZOOLOGY - IV SEMESTER

SEMESTER EXAMINATION: APRIL 2022

(Examination conducted in July 2022)

**ZO 415 - Human Anatomy and Physiology Part II and Comparative Anatomy**

Time- 1 ½ hrs Max Marks-35

This question paper contains **02** printed pages and **three** parts.

Note: Draw diagrams wherever necessary.

Indicate the question numbers clearly.

**Part A**

**Answer all the questions**: 5 X 1 = 5

1. The Central Nervous System consists of \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_
2. The mammalian brain is covered by \_\_\_\_\_\_\_ layers of protective coverings called meninges
3. Swelling of the neck region is due to \_\_\_\_\_\_\_ medical condition.
4. \_\_\_\_\_ hormone helps in release of milk from the mammary glands.
5. Endolymph is present in the \_\_\_\_\_\_ area of the inner ear.

**Part B**

**Answer any FOUR of the following**: 4 X 5 = 20

1. Write a note on Fovea centralis, blind spot, yellow spot, rhodopsin and iodopsin.
2. Compare and comment on the chambers of the heart of fish and frog
3. When a ferocious dog approaches you, where & which are the hormones secreted and what are the physiological changes influenced?
4. What is synaptic conduction?
5. Parathormone and calcitonin hormones are responsible for calcium homeostasis. Substantiate the statement.
6. Draw a neat labeled diagram of a section of the spinal cord.

**Part C**

**Answer any ONE of the following**: 1 X 10 = 10

1. With a neat labelled diagram explain how the nerve impulse transmission takes place in an axon.
2. What are the functions of Alpha and beta cell secretions of Islets of Langerhans? Compare Diabetes mellitus and Diabetes insipidus.